



114,558

Application Date: 13th Feb., 1941. No. 388/41.

Applicant (Assignee of Actual Inventor) METAL AND MOLDING MANUFACTURERS
PTY. LIMITED.
Actual Inventor ERNEST MATE, of New South Wales.
Application and Provisional Specification Accepted, 6th March, 1941.
Complete Specification after Provisional Specification Lodged, 8th November, 1941.
Complete Specification Accepted, 16th January, 1942.
Acceptance Advertised (Sec. 50) 29th January, 1942.

Class 06.6.

Drawing attached.

COMPLETE SPECIFICATION

"Improvements relating to electric torches."

WE, METAL AND MOLDING MANUFACTURERS PTY. LIMITED, carrying on business as Manufacturers, at 3 St. Peter's Street, Darlinghurst, near Sydney, in the State of New South Wales, Commonwealth of Australia, hereby declare this invention and the manner in which it is to be performed, to be fully described and ascertained in and by the following statement:—

10 This invention relates to electric torches of the kind capable of operating at fixed and also at changeable focal points.

The torch consists of a hollow body, preferably tubular, to receive one or more direct 15 collecting lamps, each electric lamp or lamps. The body of the torch is capable of being adjusted to focus the light from the lamp or lamps at different distances from the lamp or lamps, for projecting the light at different angles of the lamp contacts and for making a connection from the cell to the lamp or lamps, which is of metal.

The upper end of the body has an insulated disc-like member secured thereon.

This member is screw threaded or others 20 wise formed to receive an electric lamp or bulb. Preferably the lamp is screwed into a socket in the said member and the latter has a metallic contact adapted to engage a central contact of the lamp and pass through the insulated material of the disc to the 5 inside of the body where it is engaged by the dry cell terminal previously referred to.

The body also has a spring blade switch 10 member secured at its lower end, therefore the said blade having intermediate its length a knob or pin. At the upper end the knob or pin is adapted for engaging an internal contact of the lamp or lamps, which after 15 the lamp or lamps are inserted, the knob or pin is pushed into the contact of the lamp or lamps, thereby making a connection from the cell to the lamp or lamps.

20 The body is formed with a screw thread at its upper end and a rotating pin is attached at the upper end of the body. The rotating pin is adapted to engage a contact of the lamp or lamps.

head 27 carries a reflector 28. Figure 2, which together with lens 29 is retained in position by an annular shock absorber 30 of resilient material. It will be observed that as illustrated in Figures 1, 6 and 7 the sleeve member 25 has two diagonal focusing slot portions 31 and 32 extending from the transverse guiding or focusing slot portion 24 and that in addition to the hole 26 for the push piece 21 there is a diagonal slot 33 in which the said push piece 21 may move.

When the sleeve member 25 is placed upon the body 10, see Figure 6, the focusing pin 23 is depressed and finally enters the transverse slot 24; while at the same time the push piece 21 is depressed and finally enters hole 26. This position, Figure 6, may be said to be the normal position of the sleeve member 25 with relation to the body 10. In this position the push piece 21 may be pressed down to the circuit of the lamp 34 through spring blade 18 and contact limb 36.

If it is desired to change the size of the beam projected from the torch while having manual control of the push piece 21 the sleeve member 24 is turned to the right, Figure 7, so as to assume the position shown in Figure 7 and cause the focusing pin 23 to enter the diagonal slot 31 and the push piece 21 to enter the diagonal slot 33. This may easily be effected as the push piece 21 has a spherical head which enables it to be depressed while it passes from hole 26 to diagonal slot 33. In this Figure 7 position according to the degree of movement of the sleeve 25 focusing may be achieved and at the same time the push piece 21 is free to be depressed at will to close a circuit for projecting the beam of light.

It will be seen that continuous adjustment of the beam may be made by the push piece 21 and the sleeve 25 turned to the right, Figure 7, or to the left, Figure 8, from the normal position. When the sleeve 25 is turned to the left of Figure 8, the focusing pin 23 enters the diagonal slot 32 and the push piece 21 passes beneath the sleeve 25 and is kept depressed to close the lamp circuit at contact limb 36. When

in Figure 8 the extreme limit of focusing under these conditions has been attained.

It will be appreciated that various modifications may be made in the above construction without departing from the spirit of the invention, as defined by the appended claims.

Having now fully described and ascertained our said invention and the manner in which it is to be performed, we declare that what we claim is:

1. Improvements in electric torches, comprising a cylindrical body for receiving dry cells, said body having a screwed cap, a disc of insulating material secured to the body for receiving an electric lamp, said disc also having electrical contacts for the lamp, one of said contacts being capable of engagement by a switch blade member held in place by a push piece or sleeve member capable of turning and sliding upon the body and having a hole to receive the said push piece, said body also having a resilient pin for engaging a guiding slot in the said sleeve member for the purpose of controlling the turning and sliding movement of the sleeve with relation to the body.

2. Improvements in torches as claimed in Claim 1, characterized in that the electrical contacts for the lamp consist of a central contact which engages both the lamp and the dry cell battery and a U-shaped fitting one limb of which engages the lamp while the other limb is capable of being engaged by the switch blade member.

3. Improvements in torches as claimed in Claim 1, characterized in that the said slot in the sleeve has a horizontal portion and one or more diagonal portions in which the said resilient pin may move when the sleeve is turned. Also in combination with the body.

4. Improvements in torches as claimed in Claim 1, further characterized in that the diagonal portion or portions of the said slot are curved so that the resilient pin provides

5. Improvements in torches as claimed in Claim 1, and 3, characterized in that the said push piece is also capable of engaging a diagonal slot in the sleeve member when the resilient guiding pin is in the diagonal portion of the said slot, which slot is engaged.

6. Improvements in electric torches as claimed in Claim 3, characterized in that

the sleeve member has a reflector and a lens held in position by an annular shock absorber of resilient material.

7. Improvements in electric torches having a body and a movable sleeve member carrying a reflector and a lens characterised in that the body has a resilient guide-pin and a contact making push piece, said guide pin functioning to guide the sleeve with respect to the body and also serving to focus the beam from the torch, said push piece being capable of manual depression at a fixed focal point and also of being depressed manually at variable focal points, said push piece being further capable of

being automatically depressed to give a continuous beam at a fixed focal point or alternatively at variable focal points.

8. An improved electric torch substantially as described and as illustrated in the accompanying drawings.

Dated this 7th day of November, 1941.

METAL AND MOULDING MANUFACTURERS
PTY LIMITED.

By its Patent Attorneys

EDWARD WATERS & SONS

Fellow Institute of Patent Attorneys
of Australia

Witness: J. E. Wells



